Band25_3MHz_16QAM_24055_1RB#0

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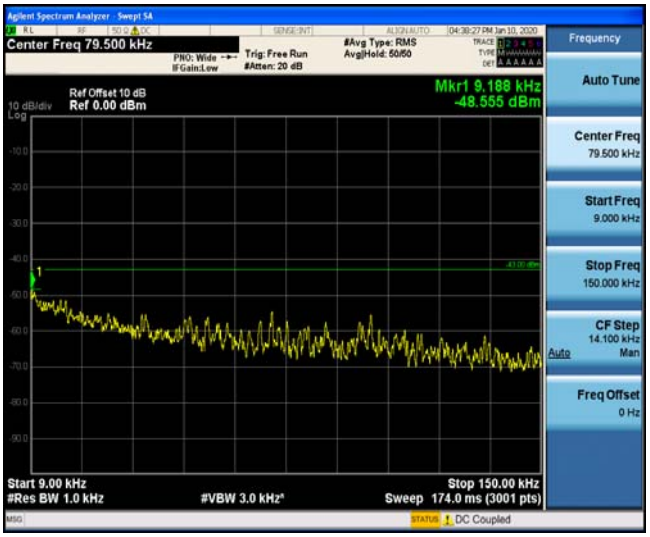

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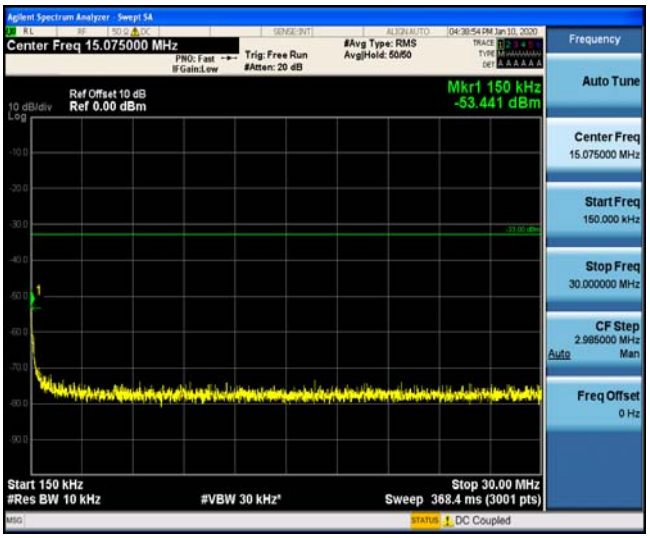

Band25_3MHz_16QAM_26365_1RB#0

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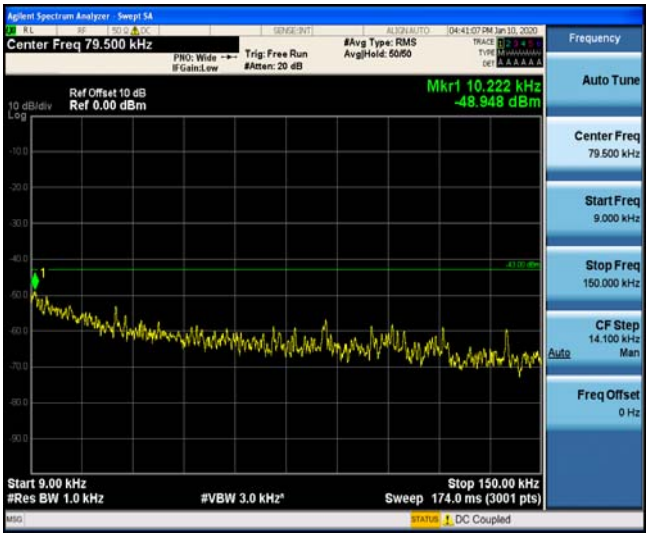

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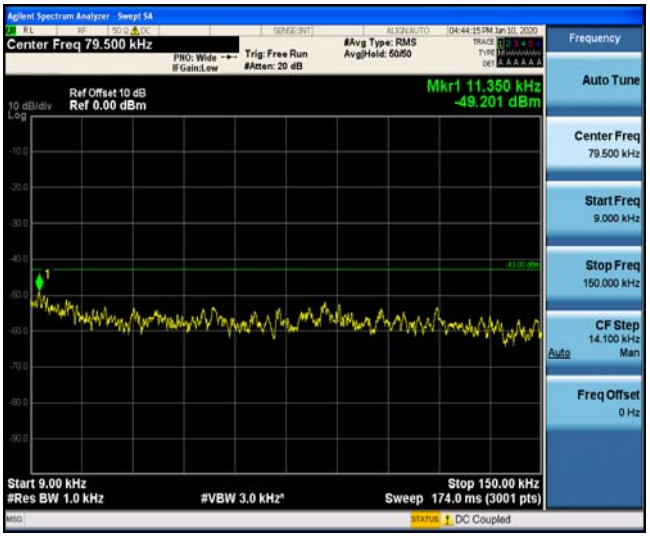
Band25_3MHz_16QAM_26675_1RB#0

Band25_5MHz_QPSK_24065_1RB#0



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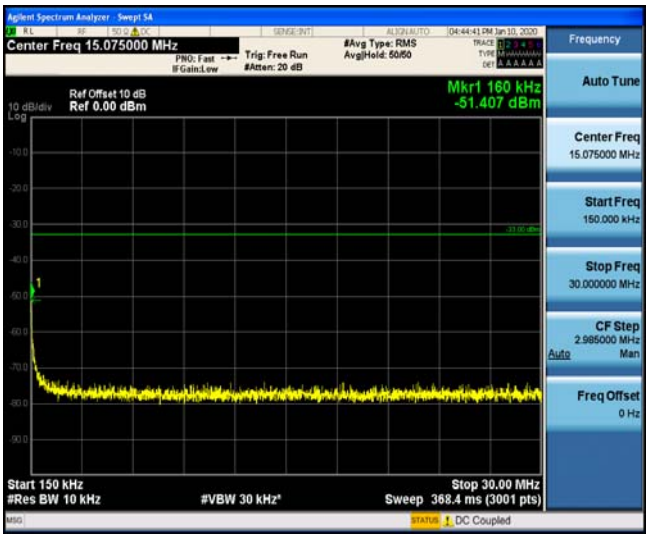

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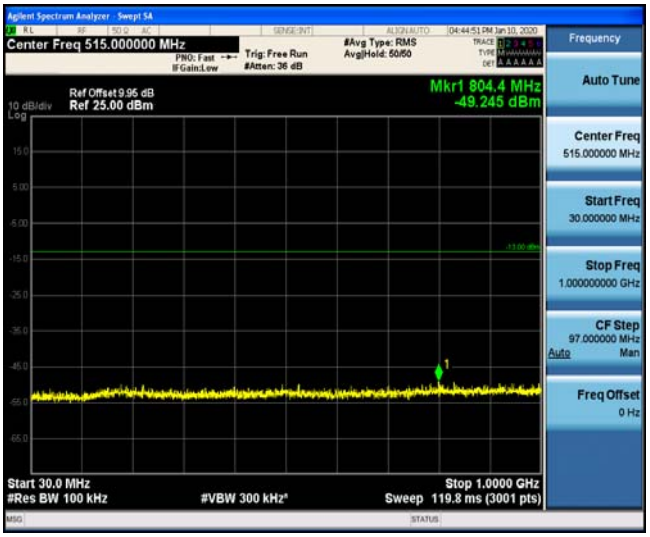

Band25_5MHz_QPSK_24065_1RB#0

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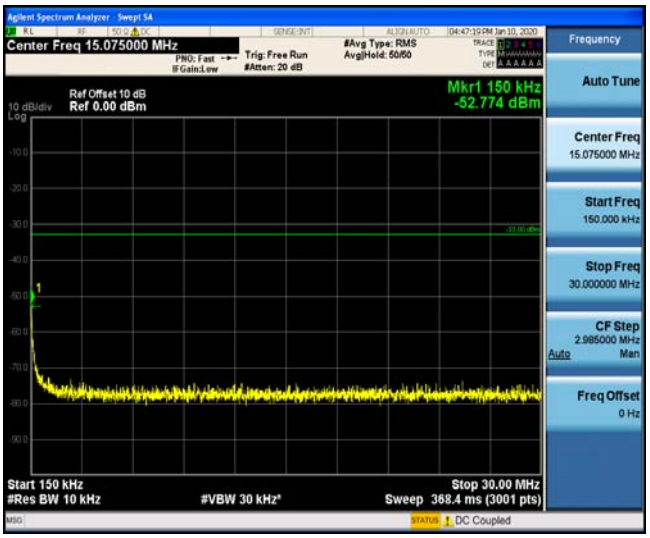

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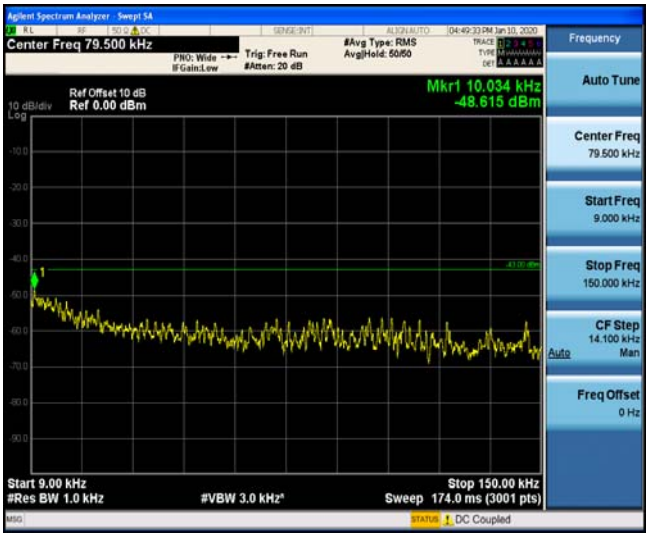

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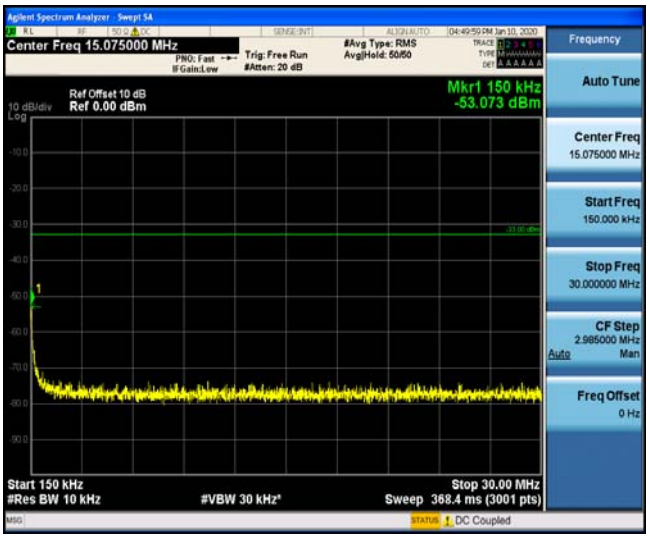

Band25_5MHz_QPSK_26665_1RB#0

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Band25_5MHz_QPSK_26665_1RB#0

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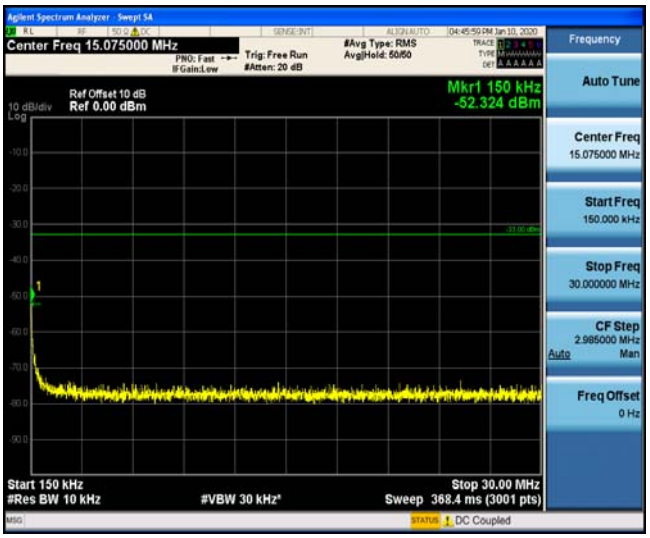
Band25_5MHz_16QAM_24065_1RB#0



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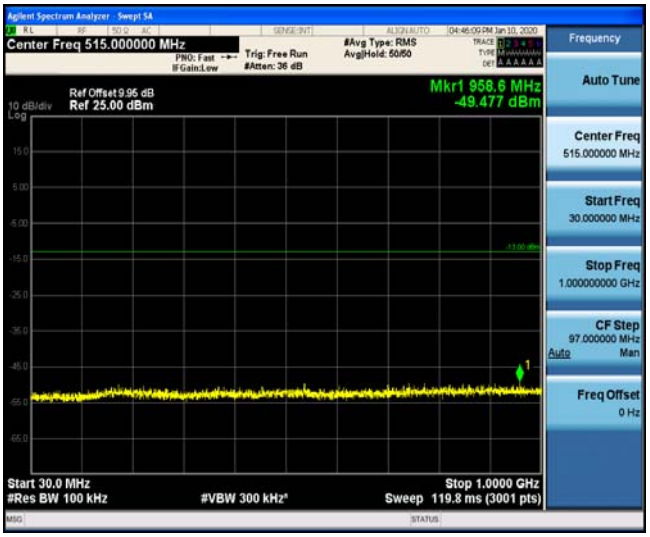

Band25_5MHz_16QAM_24065_1RB#0

Band25_5MHz_16QAM_24065_1RB#0

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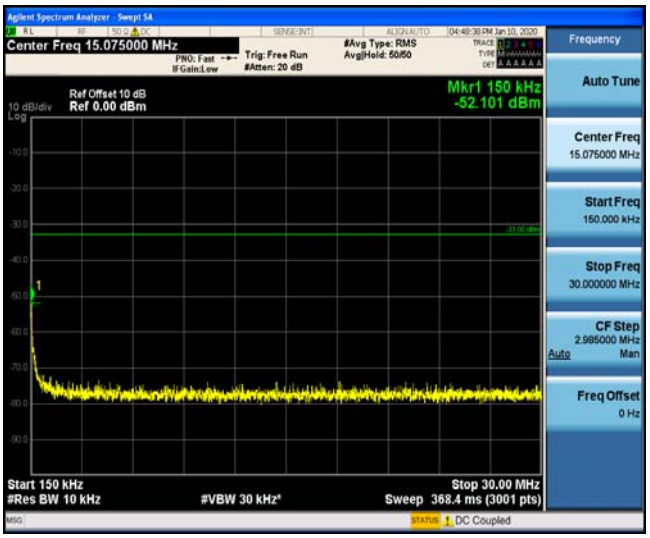

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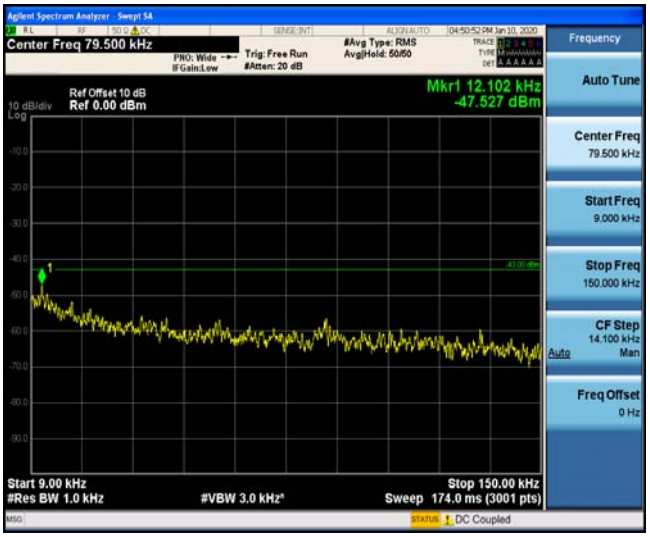
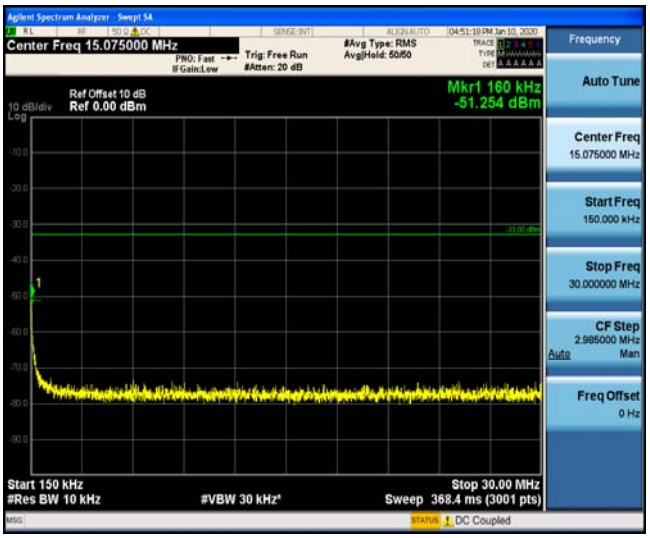
Band25_5MHz_16QAM_26665_1RB#0



Band25_5MHz_16QAM_26665_1RB#0



Band25_5MHz_16QAM_26665_1RB#0

Band25_5MHz_16QAM_26665_1RB#0

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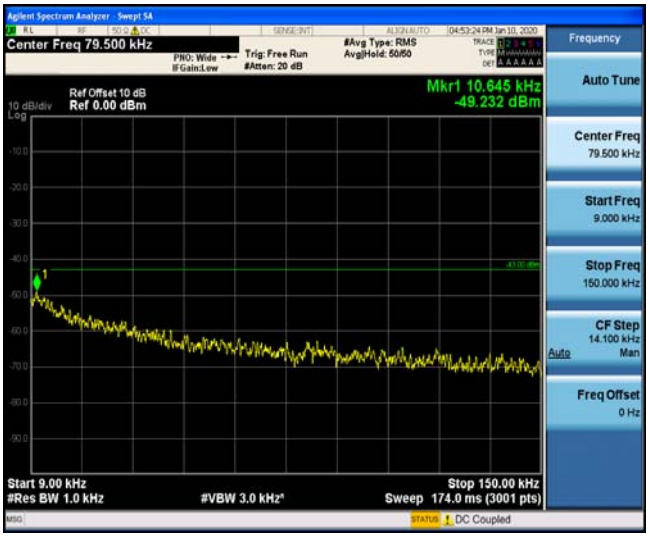
Band25_5MHz_16QAM_26665_1RB#0

Band25_10MHz_QPSK_24090_1RB#0



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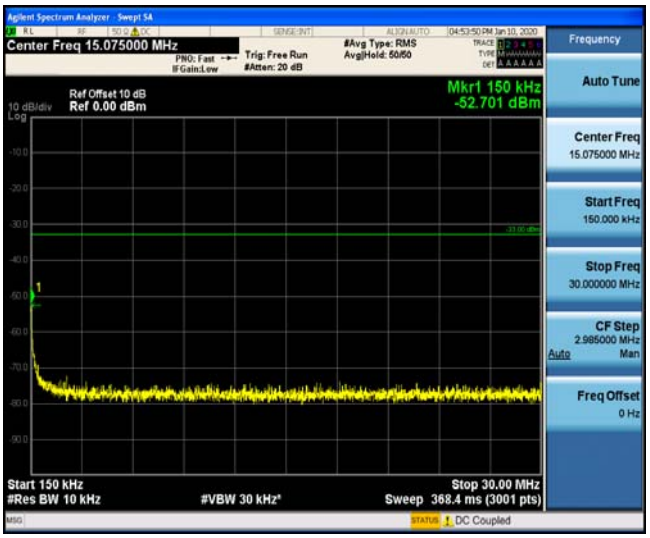

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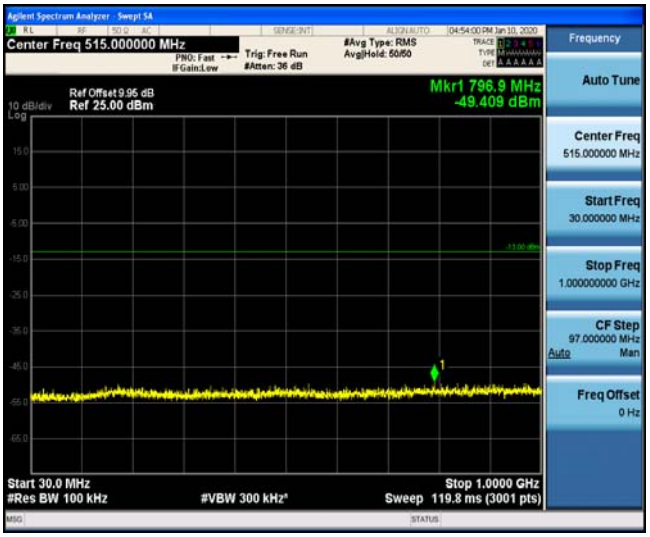

Band25_10MHz_QPSK_24090_1RB#0

Band25_10MHz_QPSK_24090_1RB#0

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Band25_10MHz_QPSK_26365_1RB#0

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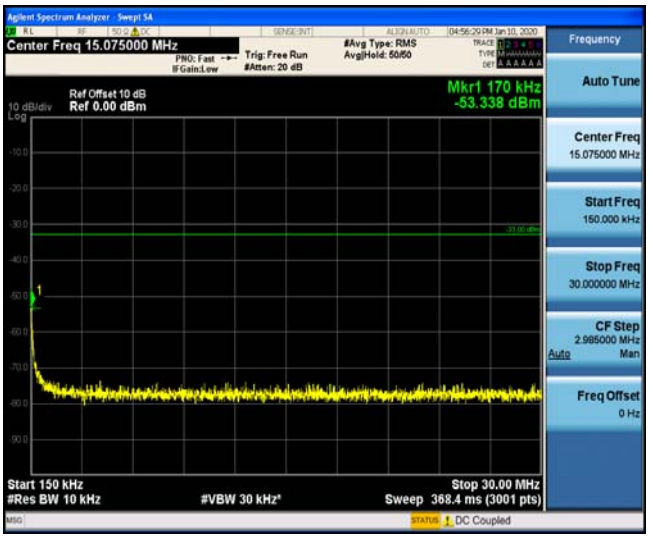

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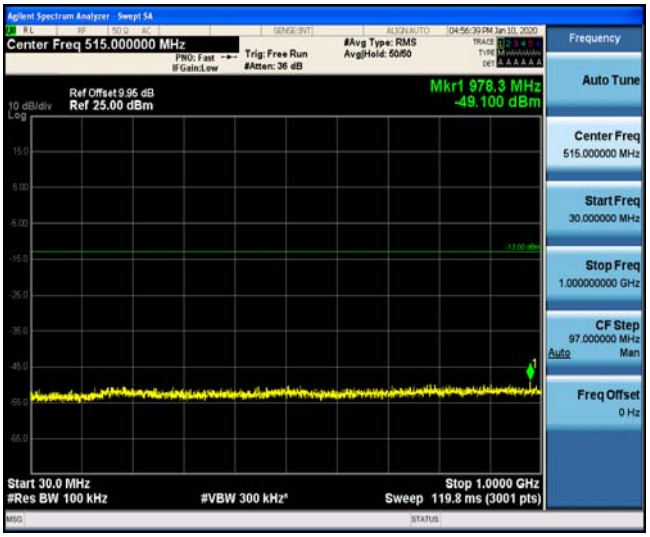

Band25_10MHz_QPSK_26365_1RB#0

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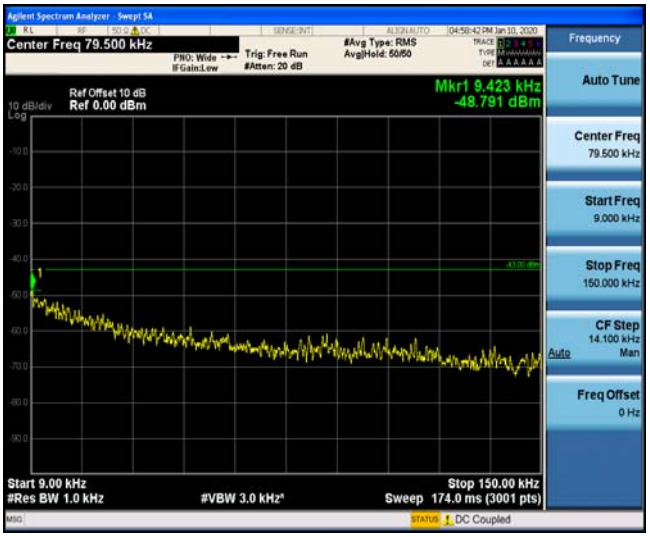

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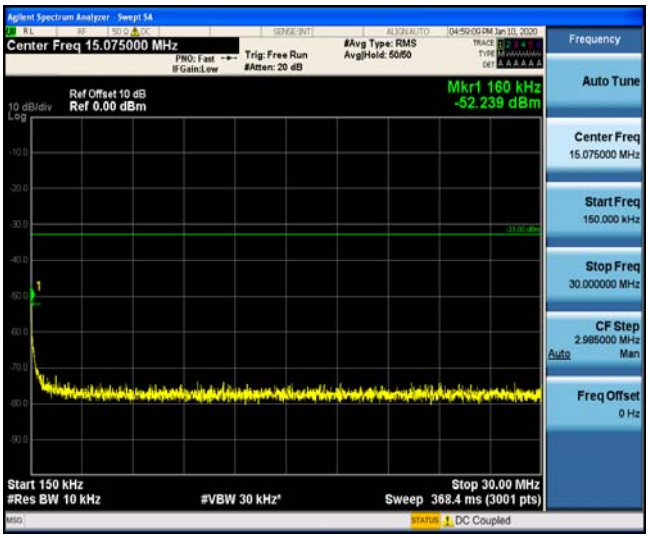

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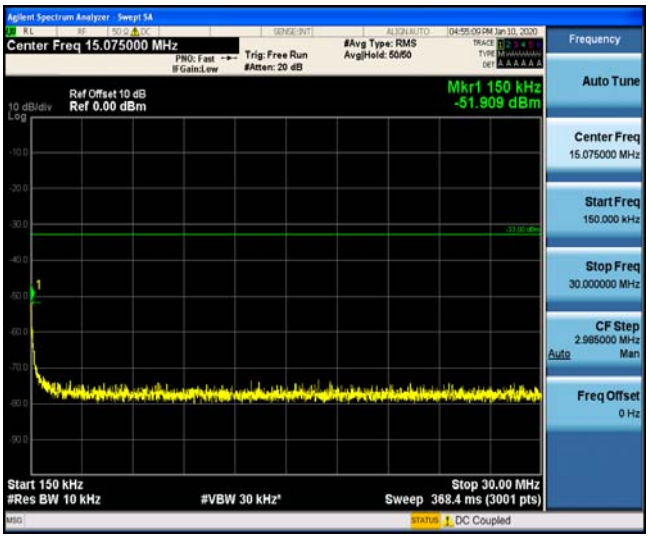

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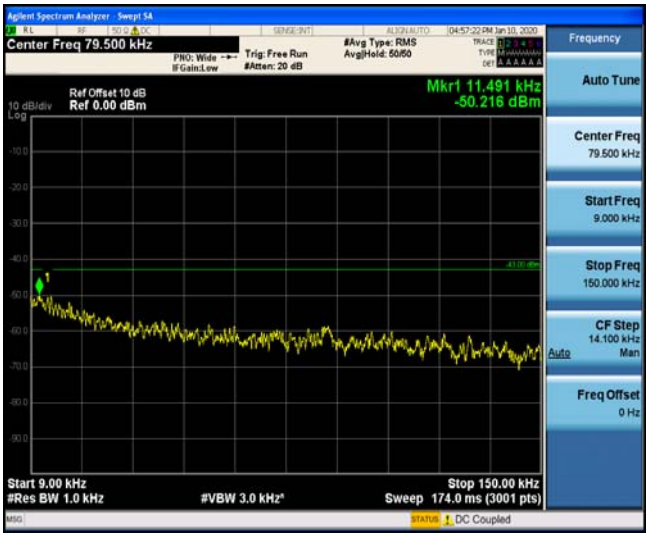
Band25_10MHz_16QAM_26365_1RB#0



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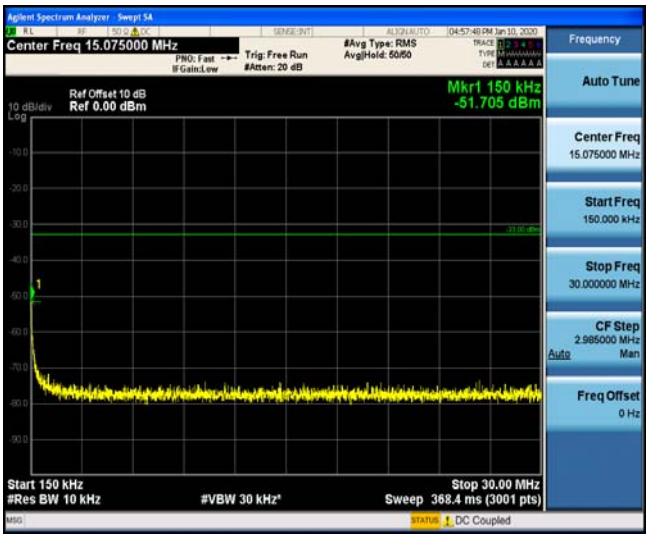

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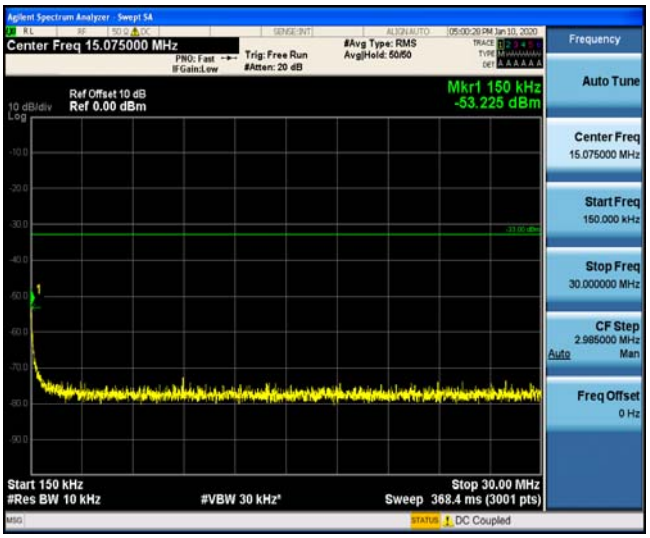

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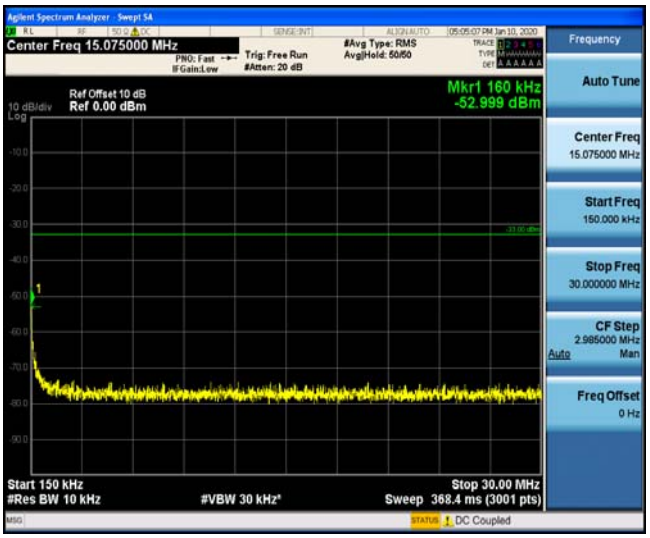

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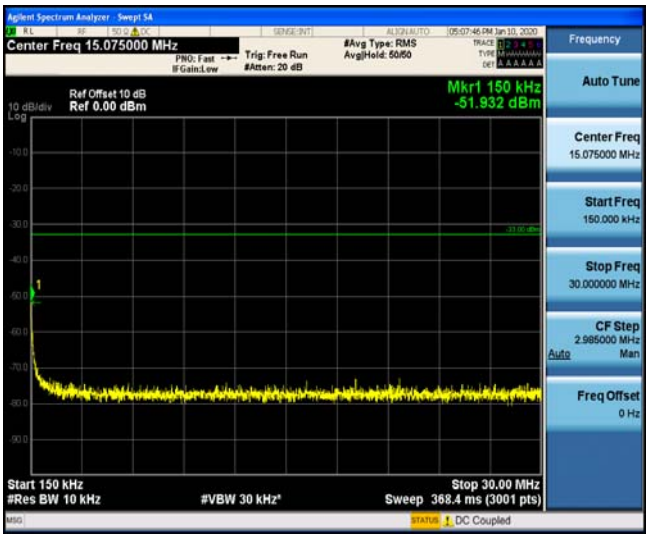
Band25_15MHz_QPSK_26365_1RB#0



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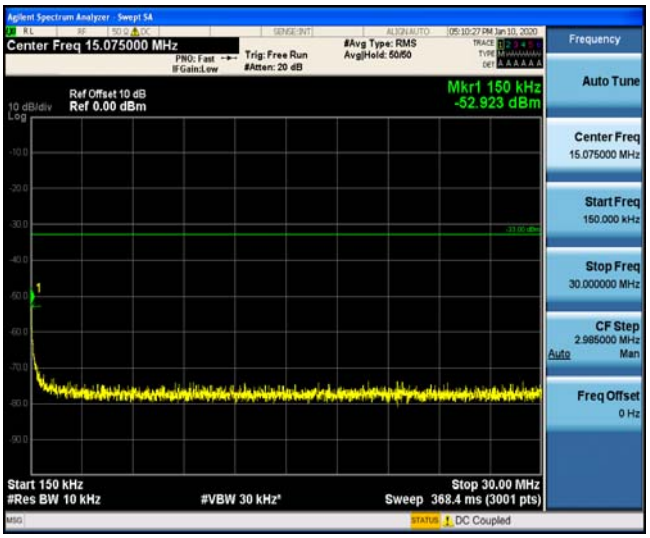

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Band25_15MHz_QPSK_26615_1RB#0

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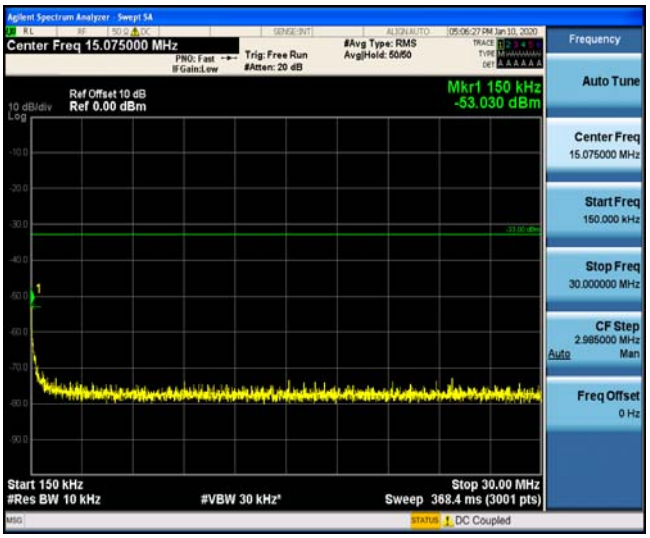
Band25_15MHz_16QAM_24115_1RB#0



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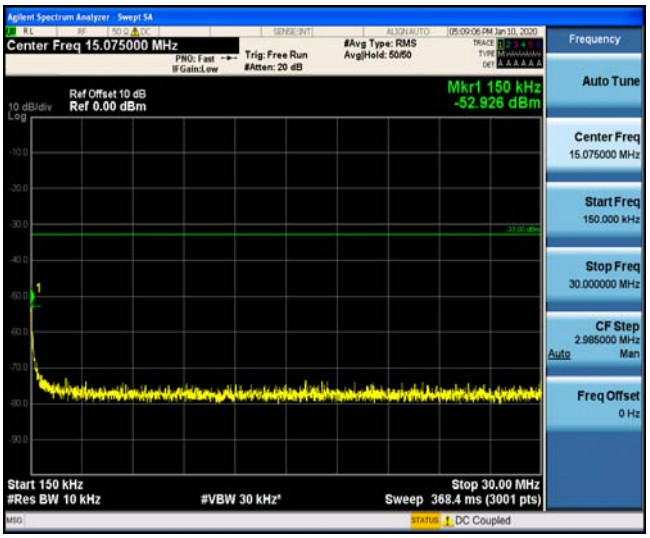
Band25_15MHz_16QAM_26365_1RB#0

Band25_15MHz_16QAM_26365_1RB#0



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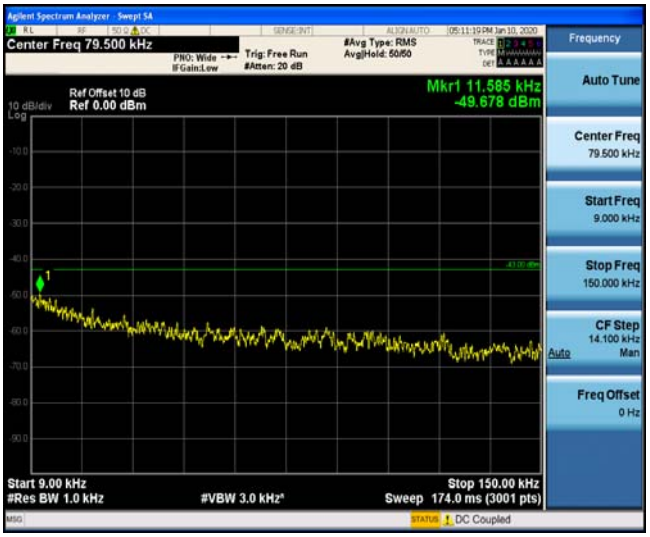
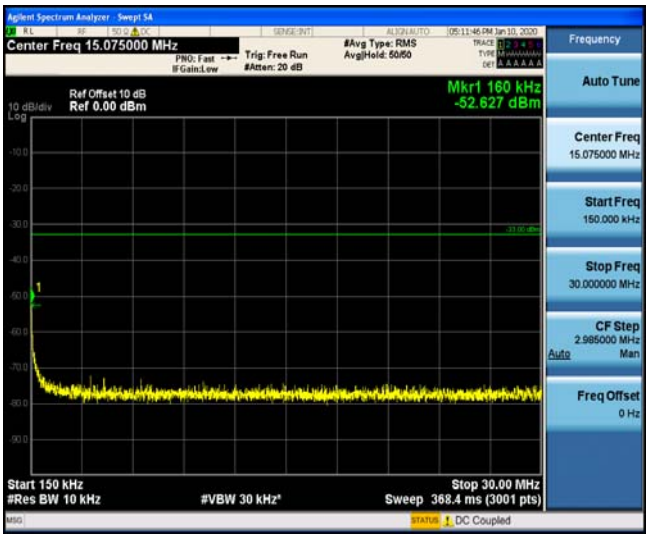


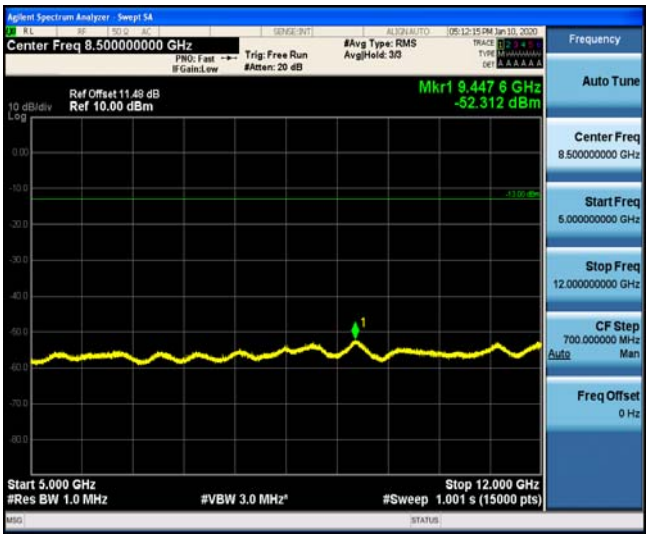
Band25_15MHz_16QAM_26615_1RB#0



Band25_15MHz_16QAM_26615_1RB#0

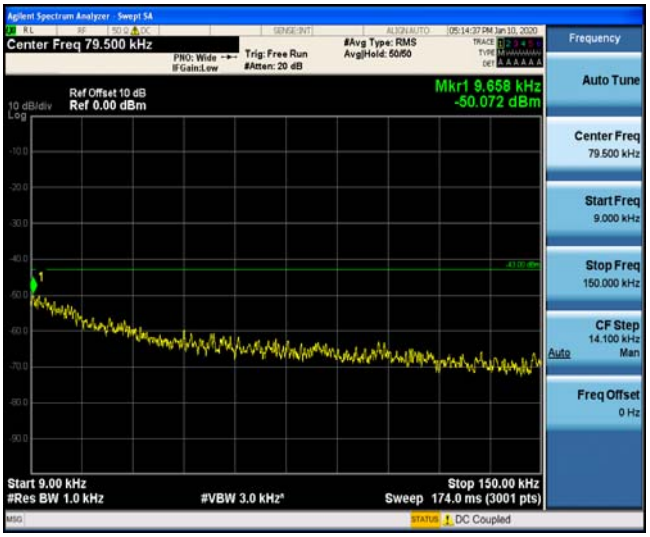
Band25_15MHz_16QAM_26615_1RB#0

Band25_15MHz_16QAM_26615_1RB#0



Band25_15MHz_16QAM_26615_1RB#0

Band25_20MHz_QPSK_24140_1RB#0



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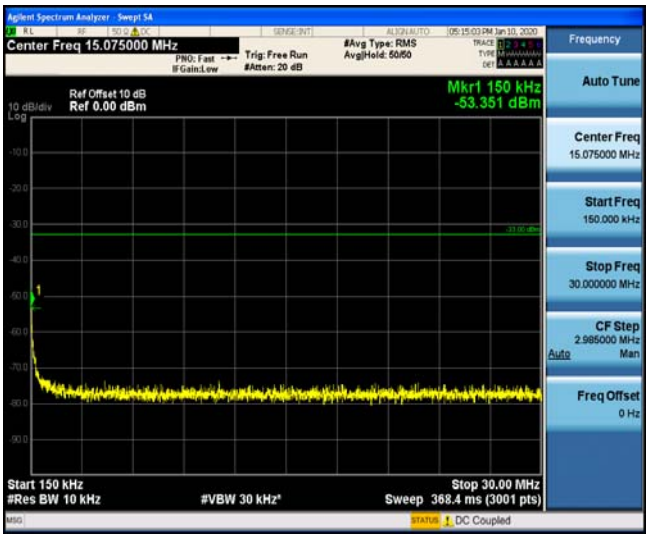

Band25_20MHz_QPSK_24140_1RB#0

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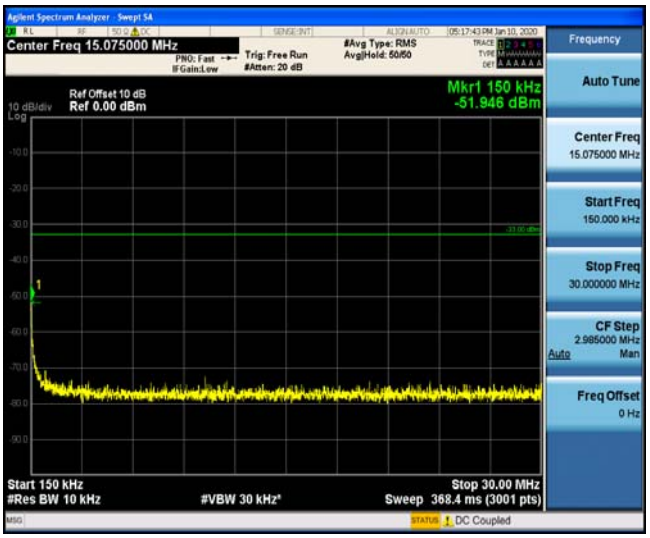
Band25_20MHz_QPSK_26365_1RB#0



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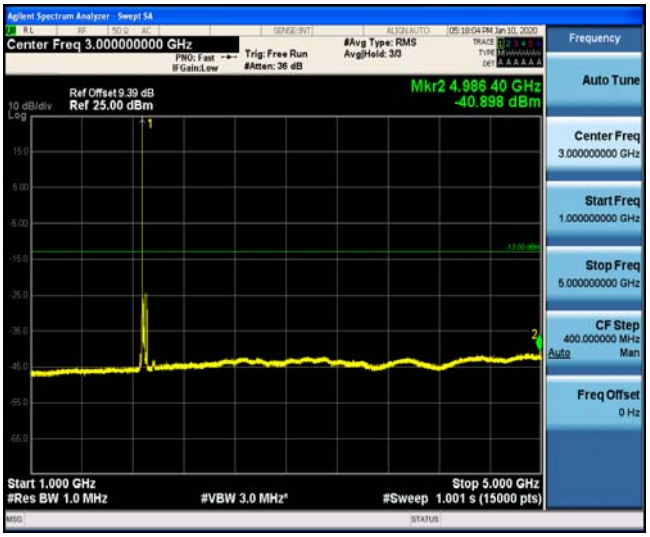
Band25_20MHz_QPSK_26365_1RB#0



Band25_20MHz_QPSK_26365_1RB#0

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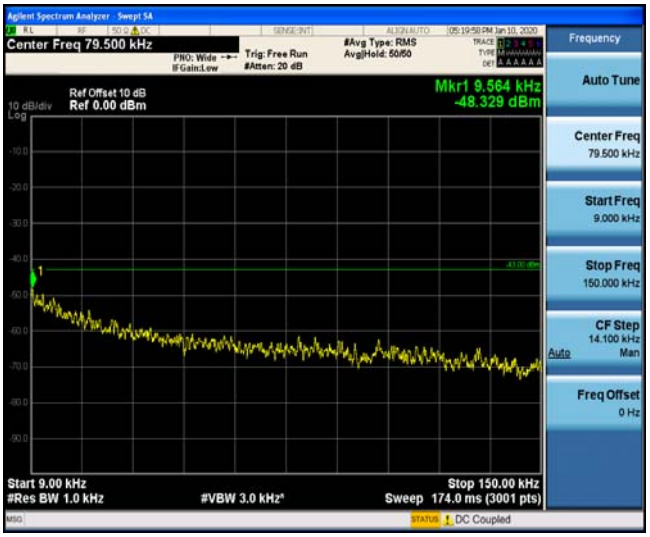
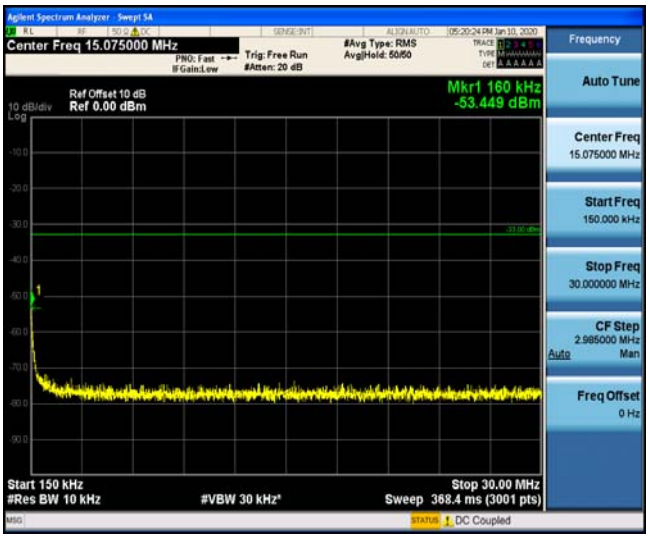
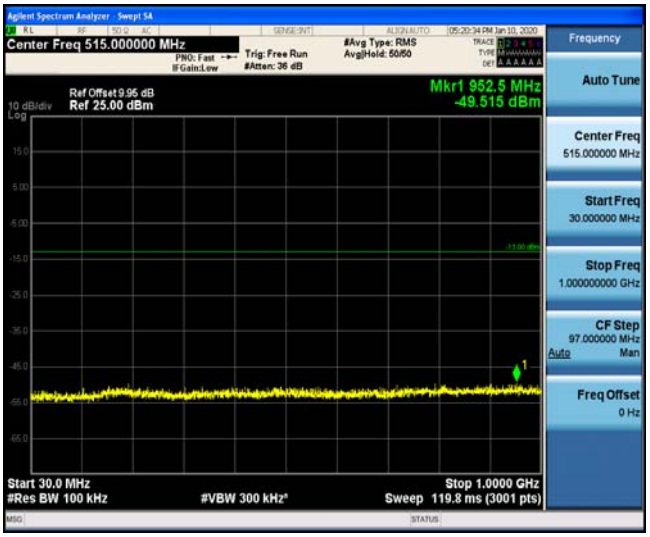
Band25_20MHz_QPSK_26590_1RB#0



Band25_20MHz_QPSK_26590_1RB#0



Band25_20MHz_QPSK_26590_1RB#0



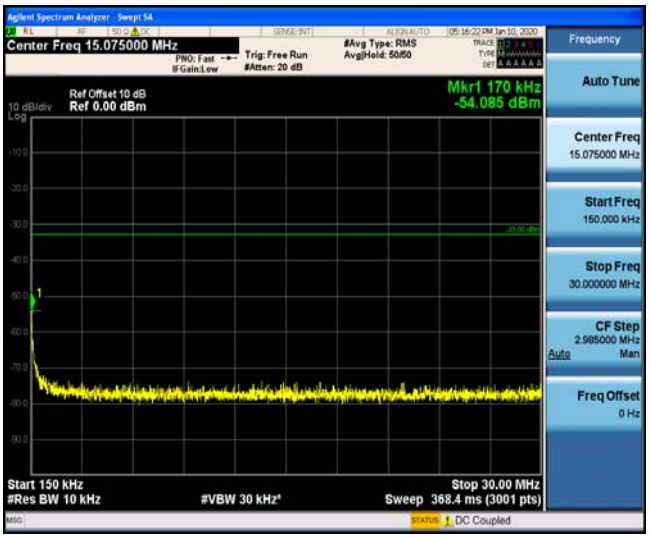
Band25_20MHz_QPSK_26590_1RB#0

Band25_20MHz_QPSK_26590_1RB#0

Band25_20MHz_QPSK_26590_1RB#0

Band25_20MHz_16QAM_24140_1RB#0

Band25_20MHz_16QAM_24140_1RB#0



Band25_20MHz_16QAM_24140_1RB#0

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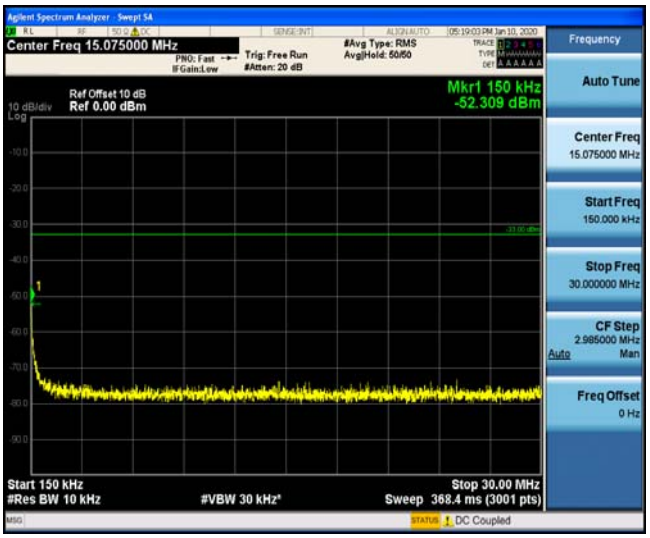


Band25_20MHz_16QAM_26365_1RB#0

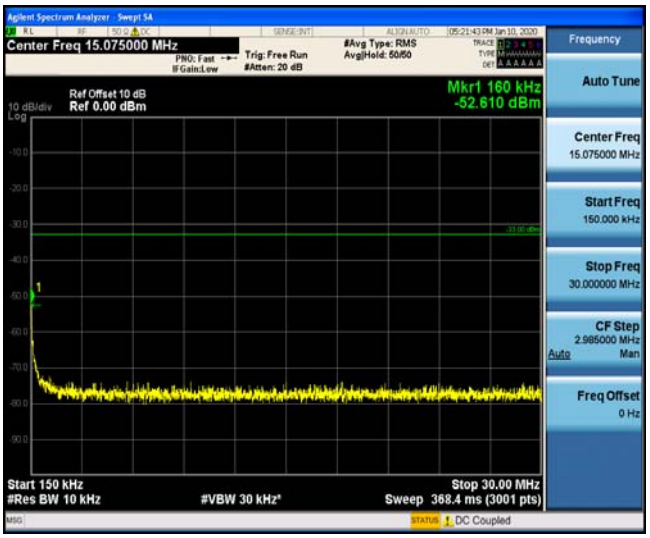
Band25_20MHz_16QAM_26365_1RB#0

Band25_20MHz_16QAM_26365_1RB#0

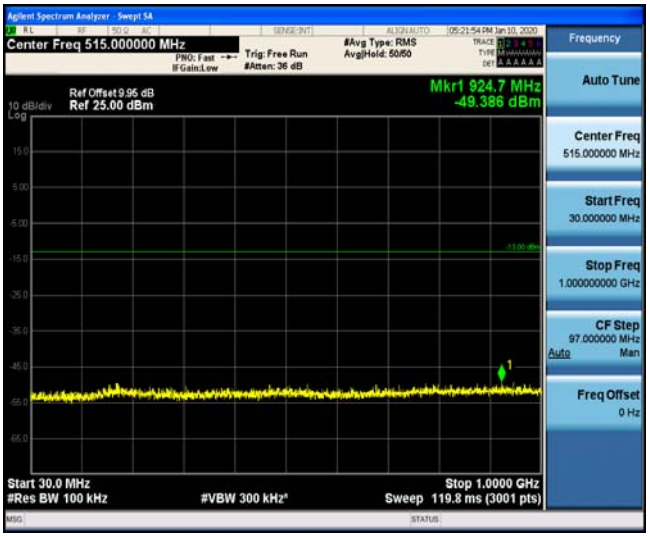
Band25_20MHz_16QAM_26365_1RB#0

Band25_20MHz_16QAM_26590_1RB#0

Band25_20MHz_16QAM_26590_1RB#0



Band25_20MHz_16QAM_26590_1RB#0



Band25_20MHz_16QAM_26590_1RB#0

Band25_20MHz_16QAM_26590_1RB#0

Band25_20MHz_16QAM_26590_1RB#0


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 3/3
Frequency
Auto Tune
Ref Offset 19.76 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 17.007 5 GHz
-39.316 dBm
Center Freq
15.000000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
18.000000000 GHz
CF Step
600.000000 MHz
Auto
Man
Freq Offset
0 Hz
Start 12.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 18.000 GHz
#Sweep 1.001 s (15000 pts)

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.45	0.000243	± 2.5	PASS
		VN	TN	2.98	0.001610	± 2.5	PASS
		VH	TN	2.66	0.001437	± 2.5	PASS
	MCH	VL	TN	3.59	0.001907	± 2.5	PASS
		VN	TN	1.1	0.000584	± 2.5	PASS
		VH	TN	0.72	0.000382	± 2.5	PASS
	HCH	VL	TN	3.02	0.001578	± 2.5	PASS
		VN	TN	0.64	0.000334	± 2.5	PASS
		VH	TN	0.84	0.000439	± 2.5	PASS
16QAM	LCH	VL	TN	4.77	0.002577	± 2.5	PASS
		VN	TN	4.52	0.002442	± 2.5	PASS
		VH	TN	-1.69	-0.000913	± 2.5	PASS
	MCH	VL	TN	1.21	0.000643	± 2.5	PASS
		VN	TN	-0.65	-0.000345	± 2.5	PASS
		VH	TN	-1.18	-0.000627	± 2.5	PASS
	HCH	VL	TN	4.19	0.002195	± 2.5	PASS
		VN	TN	-0.65	-0.000340	± 2.5	PASS
		VH	TN	4.01	0.002100	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.05	-0.000027	± 2.5	PASS
		VN	-20	1.06	0.000573	± 2.5	PASS
		VN	-10	1.94	0.001048	± 2.5	PASS
		VN	0	3.13	0.001691	± 2.5	PASS
		VN	10	3.48	0.001880	± 2.5	PASS
		VN	20	2.23	0.001205	± 2.5	PASS
		VN	30	-0.84	-0.000454	± 2.5	PASS
		VN	40	2	0.001081	± 2.5	PASS
		VN	50	4.1	0.002215	± 2.5	PASS
	MCH	VN	-30	1.99	0.001057	± 2.5	PASS

		VN	-20	-1.65	-0.000876	± 2.5	PASS
		VN	-10	-0.35	-0.000186	± 2.5	PASS
		VN	0	4.76	0.002529	± 2.5	PASS
		VN	10	-1.23	-0.000653	± 2.5	PASS
		VN	20	4.69	0.002491	± 2.5	PASS
		VN	30	-1.68	-0.000892	± 2.5	PASS
		VN	40	0.2	0.000106	± 2.5	PASS
		VN	50	1.97	0.001046	± 2.5	PASS
	HCH	VN	-30	-0.91	-0.000475	± 2.5	PASS
		VN	-20	2.02	0.001055	± 2.5	PASS
		VN	-10	-0.66	-0.000345	± 2.5	PASS
		VN	0	3.48	0.001818	± 2.5	PASS
		VN	10	-1.97	-0.001029	± 2.5	PASS
		VN	20	1.2	0.000627	± 2.5	PASS
		VN	30	1.56	0.000815	± 2.5	PASS
		VN	40	4.53	0.002366	± 2.5	PASS
		VN	50	0.29	0.000151	± 2.5	PASS
16QAM	LCH	VN	-30	-0.37	-0.000200	± 2.5	PASS
		VN	-20	-0.58	-0.000313	± 2.5	PASS
		VN	-10	4.79	0.002588	± 2.5	PASS
		VN	0	1.06	0.000573	± 2.5	PASS
		VN	10	-0.57	-0.000308	± 2.5	PASS
		VN	20	-1.65	-0.000892	± 2.5	PASS
		VN	30	-0.93	-0.000503	± 2.5	PASS
		VN	40	-1.07	-0.000578	± 2.5	PASS
		VN	50	1.94	0.001048	± 2.5	PASS
	MCH	VN	-30	-0.54	-0.000287	± 2.5	PASS
		VN	-20	-0.05	-0.000027	± 2.5	PASS
		VN	-10	-1.02	-0.000542	± 2.5	PASS
		VN	0	3.76	0.001997	± 2.5	PASS
		VN	10	-1	-0.000531	± 2.5	PASS
		VN	20	3.31	0.001758	± 2.5	PASS
		VN	30	-0.56	-0.000297	± 2.5	PASS
		VN	40	0.66	0.000351	± 2.5	PASS
		VN	50	0.92	0.000489	± 2.5	PASS
	HCH	VN	-30	4.37	0.002283	± 2.5	PASS
		VN	-20	1.78	0.000930	± 2.5	PASS
		VN	-10	-1.55	-0.000810	± 2.5	PASS
		VN	0	-1.41	-0.000737	± 2.5	PASS
		VN	10	-1.96	-0.001024	± 2.5	PASS
		VN	20	2.86	0.001494	± 2.5	PASS

		VN	30	3.29	0.001719	± 2.5	PASS
		VN	40	-1.55	-0.000810	± 2.5	PASS
		VN	50	3.74	0.001954	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.73	0.002015	± 2.5	PASS
		VN	TN	0.87	0.000470	± 2.5	PASS
		VH	TN	0.09	0.000049	± 2.5	PASS
	MCH	VL	TN	0.73	0.000388	± 2.5	PASS
		VN	TN	2.95	0.001567	± 2.5	PASS
		VH	TN	0.44	0.000234	± 2.5	PASS
	HCH	VL	TN	0.82	0.000429	± 2.5	PASS
		VN	TN	-0.3	-0.000157	± 2.5	PASS
		VH	TN	0.64	0.000334	± 2.5	PASS
16QAM	LCH	VL	TN	1.12	0.000605	± 2.5	PASS
		VN	TN	-1.38	-0.000745	± 2.5	PASS
		VH	TN	0.47	0.000254	± 2.5	PASS
	MCH	VL	TN	0.36	0.000191	± 2.5	PASS
		VN	TN	-0.65	-0.000345	± 2.5	PASS
		VH	TN	-0.43	-0.000228	± 2.5	PASS
	HCH	VL	TN	0.55	0.000287	± 2.5	PASS
		VN	TN	3.64	0.001902	± 2.5	PASS
		VH	TN	2.49	0.001301	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.56	-0.000843	± 2.5	PASS
		VN	-20	3.71	0.002004	± 2.5	PASS
		VN	-10	3.08	0.001664	± 2.5	PASS
		VN	0	3.26	0.001761	± 2.5	PASS
		VN	10	2.71	0.001464	± 2.5	PASS
		VN	20	4.49	0.002425	± 2.5	PASS
		VN	30	2.46	0.001329	± 2.5	PASS
		VN	40	-0.06	-0.000032	± 2.5	PASS
		VN	50	0.94	0.000508	± 2.5	PASS
	MCH	VN	-30	2.27	0.001206	± 2.5	PASS
		VN	-20	3.27	0.001737	± 2.5	PASS

		VN	-10	-1.73	-0.000919	± 2.5	PASS
		VN	0	2.08	0.001105	± 2.5	PASS
		VN	10	0.13	0.000069	± 2.5	PASS
		VN	20	4.45	0.002364	± 2.5	PASS
		VN	30	1.03	0.000547	± 2.5	PASS
		VN	40	1.36	0.000722	± 2.5	PASS
		VN	50	0.12	0.000064	± 2.5	PASS
	HCH	VN	-30	3.31	0.001730	± 2.5	PASS
		VN	-20	3.49	0.001824	± 2.5	PASS
		VN	-10	3.83	0.002002	± 2.5	PASS
		VN	0	2.29	0.001197	± 2.5	PASS
		VN	10	2.93	0.001531	± 2.5	PASS
		VN	20	3.77	0.001970	± 2.5	PASS
		VN	30	3.88	0.002028	± 2.5	PASS
		VN	40	3.97	0.002075	± 2.5	PASS
		VN	50	4.79	0.002503	± 2.5	PASS
16QAM	LCH	VN	-30	0.04	0.000022	± 2.5	PASS
		VN	-20	2.99	0.001615	± 2.5	PASS
		VN	-10	2.22	0.001199	± 2.5	PASS
		VN	0	3.1	0.001674	± 2.5	PASS
		VN	10	-1.52	-0.000821	± 2.5	PASS
		VN	20	0.45	0.000243	± 2.5	PASS
		VN	30	-1.28	-0.000691	± 2.5	PASS
		VN	40	1.26	0.000681	± 2.5	PASS
		VN	50	-0.85	-0.000459	± 2.5	PASS
	MCH	VN	-30	-1.6	-0.000850	± 2.5	PASS
		VN	-20	1.31	0.000696	± 2.5	PASS
		VN	-10	0.65	0.000345	± 2.5	PASS
		VN	0	4.2	0.002231	± 2.5	PASS
		VN	10	1.41	0.000749	± 2.5	PASS
		VN	20	0.56	0.000297	± 2.5	PASS
		VN	30	-0.05	-0.000027	± 2.5	PASS
		VN	40	2.79	0.001482	± 2.5	PASS
		VN	50	-1.21	-0.000643	± 2.5	PASS
	HCH	VN	-30	-0.76	-0.000397	± 2.5	PASS
		VN	-20	1.46	0.000763	± 2.5	PASS
		VN	-10	1.17	0.000611	± 2.5	PASS
		VN	0	-0.9	-0.000470	± 2.5	PASS
		VN	10	3.26	0.001704	± 2.5	PASS
		VN	20	2.93	0.001531	± 2.5	PASS
		VN	30	3.82	0.001996	± 2.5	PASS

		VN	40	1.59	0.000831	± 2.5	PASS
		VN	50	4.98	0.002603	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.62	0.001954	± 2.5	PASS
		VN	TN	0.57	0.000308	± 2.5	PASS
		VH	TN	-0.88	-0.000475	± 2.5	PASS
	MCH	VL	TN	3.85	0.002045	± 2.5	PASS
		VN	TN	4.09	0.002173	± 2.5	PASS
		VH	TN	-0.55	-0.000292	± 2.5	PASS
	HCH	VL	TN	3.68	0.001924	± 2.5	PASS
		VN	TN	4.94	0.002583	± 2.5	PASS
		VH	TN	2.54	0.001328	± 2.5	PASS
16QAM	LCH	VL	TN	4.86	0.002623	± 2.5	PASS
		VN	TN	1.39	0.000750	± 2.5	PASS
		VH	TN	0.48	0.000259	± 2.5	PASS
	MCH	VL	TN	-1.83	-0.000972	± 2.5	PASS
		VN	TN	3.54	0.001880	± 2.5	PASS
		VH	TN	4.28	0.002274	± 2.5	PASS
	HCH	VL	TN	3.35	0.001752	± 2.5	PASS
		VN	TN	2.51	0.001312	± 2.5	PASS
		VH	TN	-0.84	-0.000439	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.85	0.002618	± 2.5	PASS
		VN	-20	2.56	0.001382	± 2.5	PASS
		VN	-10	-1.25	-0.000675	± 2.5	PASS
		VN	0	-1.58	-0.000853	± 2.5	PASS
		VN	10	3.65	0.001970	± 2.5	PASS
		VN	20	3.84	0.002073	± 2.5	PASS
		VN	30	1.42	0.000767	± 2.5	PASS
		VN	40	0.75	0.000405	± 2.5	PASS
		VN	50	1.7	0.000918	± 2.5	PASS
	MCH	VN	-30	-0.62	-0.000329	± 2.5	PASS
		VN	-20	2.63	0.001397	± 2.5	PASS
		VN	-10	3.32	0.001764	± 2.5	PASS

		VN	0	2.95	0.001567	± 2.5	PASS
		VN	10	2.45	0.001301	± 2.5	PASS
		VN	20	4.75	0.002523	± 2.5	PASS
		VN	30	1.12	0.000595	± 2.5	PASS
		VN	40	-1.01	-0.000537	± 2.5	PASS
		VN	50	1.2	0.000637	± 2.5	PASS
	HCH	VN	-30	0.38	0.000199	± 2.5	PASS
		VN	-20	4.32	0.002259	± 2.5	PASS
		VN	-10	2.74	0.001433	± 2.5	PASS
		VN	0	-0.58	-0.000303	± 2.5	PASS
		VN	10	3.69	0.001929	± 2.5	PASS
		VN	20	3.92	0.002050	± 2.5	PASS
		VN	30	4.05	0.002118	± 2.5	PASS
		VN	40	1.69	0.000884	± 2.5	PASS
		VN	50	4.59	0.002400	± 2.5	PASS
16QAM	LCH	VN	-30	-0.5	-0.000270	± 2.5	PASS
		VN	-20	4.27	0.002305	± 2.5	PASS
		VN	-10	0.81	0.000437	± 2.5	PASS
		VN	0	1.48	0.000799	± 2.5	PASS
		VN	10	4.77	0.002575	± 2.5	PASS
		VN	20	-0.59	-0.000318	± 2.5	PASS
		VN	30	-1.28	-0.000691	± 2.5	PASS
		VN	40	4.58	0.002472	± 2.5	PASS
		VN	50	2.04	0.001101	± 2.5	PASS
	MCH	VN	-30	-0.38	-0.000202	± 2.5	PASS
		VN	-20	0.32	0.000170	± 2.5	PASS
		VN	-10	1.08	0.000574	± 2.5	PASS
		VN	0	-0.79	-0.000420	± 2.5	PASS
		VN	10	3.66	0.001944	± 2.5	PASS
		VN	20	3.07	0.001631	± 2.5	PASS
		VN	30	3.74	0.001987	± 2.5	PASS
		VN	40	1.8	0.000956	± 2.5	PASS
		VN	50	4.69	0.002491	± 2.5	PASS
	HCH	VN	-30	-0.25	-0.000131	± 2.5	PASS
		VN	-20	-0.06	-0.000031	± 2.5	PASS
		VN	-10	2.25	0.001176	± 2.5	PASS
		VN	0	1.32	0.000690	± 2.5	PASS
		VN	10	-0.69	-0.000361	± 2.5	PASS
		VN	20	1.52	0.000795	± 2.5	PASS
		VN	30	-0.95	-0.000497	± 2.5	PASS
		VN	40	1.79	0.000936	± 2.5	PASS

		VN	50	3.6	0.001882	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	4.06	0.002189	± 2.5	PASS
		VN	TN	4.29	0.002313	± 2.5	PASS
		VH	TN	3.33	0.001795	± 2.5	PASS
	MCH	VL	TN	1.44	0.000765	± 2.5	PASS
		VN	TN	3.4	0.001806	± 2.5	PASS
		VH	TN	-0.46	-0.000244	± 2.5	PASS
	HCH	VL	TN	3.7	0.001937	± 2.5	PASS
		VN	TN	2.9	0.001518	± 2.5	PASS
		VH	TN	-1.46	-0.000764	± 2.5	PASS
16QAM	LCH	VL	TN	-0.05	-0.000027	± 2.5	PASS
		VN	TN	3.36	0.001811	± 2.5	PASS
		VH	TN	0.04	0.000022	± 2.5	PASS
	MCH	VL	TN	0.07	0.000037	± 2.5	PASS
		VN	TN	-1.04	-0.000552	± 2.5	PASS
		VH	TN	3.4	0.001806	± 2.5	PASS
	HCH	VL	TN	3.79	0.001984	± 2.5	PASS
		VN	TN	-1.65	-0.000864	± 2.5	PASS
		VH	TN	2.16	0.001131	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.67	0.001978	± 2.5	PASS
		VN	-20	2.01	0.001084	± 2.5	PASS
		VN	-10	4.6	0.002480	± 2.5	PASS
		VN	0	4.12	0.002221	± 2.5	PASS
		VN	10	2.25	0.001213	± 2.5	PASS
		VN	20	4.72	0.002544	± 2.5	PASS
		VN	30	1.72	0.000927	± 2.5	PASS
		VN	40	4.74	0.002555	± 2.5	PASS
		VN	50	3.37	0.001817	± 2.5	PASS
	MCH	VN	-30	0.69	0.000367	± 2.5	PASS
		VN	-20	2	0.001062	± 2.5	PASS
		VN	-10	1.26	0.000669	± 2.5	PASS
		VN	0	0.98	0.000521	± 2.5	PASS

		VN	10	4.19	0.002226	± 2.5	PASS
		VN	20	2.44	0.001296	± 2.5	PASS
		VN	30	1.18	0.000627	± 2.5	PASS
		VN	40	1.87	0.000993	± 2.5	PASS
		VN	50	1.49	0.000792	± 2.5	PASS
	HCH	VN	-30	-0.79	-0.000414	± 2.5	PASS
		VN	-20	2.48	0.001298	± 2.5	PASS
		VN	-10	4	0.002094	± 2.5	PASS
		VN	0	4.97	0.002602	± 2.5	PASS
		VN	10	1.4	0.000733	± 2.5	PASS
		VN	20	4.45	0.002330	± 2.5	PASS
		VN	30	-1.01	-0.000529	± 2.5	PASS
		VN	40	-0.89	-0.000466	± 2.5	PASS
		VN	50	-1.14	-0.000597	± 2.5	PASS
QPSK	LCH	VN	-30	0.7	0.000377	± 2.5	PASS
		VN	-20	4.65	0.002507	± 2.5	PASS
		VN	-10	4.23	0.002280	± 2.5	PASS
		VN	0	0.8	0.000431	± 2.5	PASS
		VN	10	4.16	0.002243	± 2.5	PASS
		VN	20	3.67	0.001978	± 2.5	PASS
		VN	30	-1.47	-0.000792	± 2.5	PASS
		VN	40	0.01	0.000005	± 2.5	PASS
		VN	50	0.17	0.000092	± 2.5	PASS
	MCH	VN	-30	2.19	0.001163	± 2.5	PASS
		VN	-20	-1.35	-0.000717	± 2.5	PASS
		VN	-10	-1.31	-0.000696	± 2.5	PASS
		VN	0	-1.48	-0.000786	± 2.5	PASS
		VN	10	-1.6	-0.000850	± 2.5	PASS
		VN	20	2.88	0.001530	± 2.5	PASS
		VN	30	2.19	0.001163	± 2.5	PASS
		VN	40	4.61	0.002449	± 2.5	PASS
		VN	50	-0.47	-0.000250	± 2.5	PASS
	HCH	VN	-30	4.54	0.002377	± 2.5	PASS
		VN	-20	1.68	0.000880	± 2.5	PASS
		VN	-10	-0.51	-0.000267	± 2.5	PASS
		VN	0	-0.86	-0.000450	± 2.5	PASS
		VN	10	3.52	0.001843	± 2.5	PASS
		VN	20	-1.81	-0.000948	± 2.5	PASS
		VN	30	-0.04	-0.000021	± 2.5	PASS
		VN	40	4.71	0.002466	± 2.5	PASS
		VN	50	-0.34	-0.000178	± 2.5	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.08	0.001120	± 2.5	PASS
		VN	TN	-1.51	-0.000813	± 2.5	PASS
		VH	TN	3.91	0.002105	± 2.5	PASS
	MCH	VL	TN	1.63	0.000866	± 2.5	PASS
		VN	TN	-1.83	-0.000972	± 2.5	PASS
		VH	TN	-1.23	-0.000653	± 2.5	PASS
	HCH	VL	TN	-1.99	-0.001043	± 2.5	PASS
		VN	TN	2.37	0.001242	± 2.5	PASS
		VH	TN	-0.78	-0.000409	± 2.5	PASS
16QAM	LCH	VL	TN	-1.35	-0.000727	± 2.5	PASS
		VN	TN	4.46	0.002401	± 2.5	PASS
		VH	TN	-0.08	-0.000043	± 2.5	PASS
	MCH	VL	TN	4.76	0.002529	± 2.5	PASS
		VN	TN	2.51	0.001333	± 2.5	PASS
		VH	TN	4.16	0.002210	± 2.5	PASS
	HCH	VL	TN	2.48	0.001300	± 2.5	PASS
		VN	TN	1.3	0.000682	± 2.5	PASS
		VH	TN	-0.58	-0.000304	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.61	-0.000328	± 2.5	PASS
		VN	-20	1.92	0.001034	± 2.5	PASS
		VN	-10	2.1	0.001131	± 2.5	PASS
		VN	0	1.26	0.000678	± 2.5	PASS
		VN	10	3.25	0.001750	± 2.5	PASS
		VN	20	-1.16	-0.000624	± 2.5	PASS
		VN	30	2.11	0.001136	± 2.5	PASS
		VN	40	0.42	0.000226	± 2.5	PASS
		VN	50	-1.73	-0.000931	± 2.5	PASS
	MCH	VN	-30	-0.32	-0.000170	± 2.5	PASS
		VN	-20	3.49	0.001854	± 2.5	PASS
		VN	-10	-0.44	-0.000234	± 2.5	PASS
		VN	0	-0.99	-0.000526	± 2.5	PASS
		VN	10	-1.81	-0.000961	± 2.5	PASS
		VN	20	-0.17	-0.000090	± 2.5	PASS

		VN	30	3.84	0.002040	± 2.5	PASS
		VN	40	0.15	0.000080	± 2.5	PASS
		VN	50	1.1	0.000584	± 2.5	PASS
	HCH	VN	-30	0.99	0.000519	± 2.5	PASS
		VN	-20	2.94	0.001541	± 2.5	PASS
		VN	-10	-1.12	-0.000587	± 2.5	PASS
		VN	0	-0.42	-0.000220	± 2.5	PASS
		VN	10	4.29	0.002249	± 2.5	PASS
		VN	20	3.4	0.001782	± 2.5	PASS
		VN	30	3.02	0.001583	± 2.5	PASS
		VN	40	2.63	0.001379	± 2.5	PASS
		VN	50	-1.02	-0.000535	± 2.5	PASS
16QAM	LCH	VN	-30	-0.61	-0.000328	± 2.5	PASS
		VN	-20	-1.6	-0.000861	± 2.5	PASS
		VN	-10	1.63	0.000878	± 2.5	PASS
		VN	0	-1.61	-0.000867	± 2.5	PASS
		VN	10	2.97	0.001599	± 2.5	PASS
		VN	20	4.24	0.002283	± 2.5	PASS
		VN	30	2.81	0.001513	± 2.5	PASS
		VN	40	1.22	0.000657	± 2.5	PASS
		VN	50	0.16	0.000086	± 2.5	PASS
	MCH	VN	-30	0.62	0.000329	± 2.5	PASS
		VN	-20	1.49	0.000792	± 2.5	PASS
		VN	-10	-0.97	-0.000515	± 2.5	PASS
		VN	0	3.21	0.001705	± 2.5	PASS
		VN	10	-0.94	-0.000499	± 2.5	PASS
		VN	20	0.23	0.000122	± 2.5	PASS
		VN	30	2.46	0.001307	± 2.5	PASS
		VN	40	-0.37	-0.000197	± 2.5	PASS
		VN	50	1.83	0.000972	± 2.5	PASS
	HCH	VN	-30	0.21	0.000110	± 2.5	PASS
		VN	-20	3.49	0.001830	± 2.5	PASS
		VN	-10	2.45	0.001284	± 2.5	PASS
		VN	0	0.93	0.000488	± 2.5	PASS
		VN	10	-0.96	-0.000503	± 2.5	PASS
		VN	20	-0.3	-0.000157	± 2.5	PASS
		VN	30	-0.23	-0.000121	± 2.5	PASS
		VN	40	3.94	0.002066	± 2.5	PASS
		VN	50	0.1	0.000052	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.64	0.001419	± 2.5	PASS
		VN	TN	3.43	0.001844	± 2.5	PASS
		VH	TN	-1.22	-0.000656	± 2.5	PASS
	MCH	VL	TN	3.42	0.001817	± 2.5	PASS
		VN	TN	-0.83	-0.000441	± 2.5	PASS
		VH	TN	0.54	0.000287	± 2.5	PASS
	HCH	VL	TN	4.6	0.002415	± 2.5	PASS
		VN	TN	3.97	0.002084	± 2.5	PASS
		VH	TN	-1.17	-0.000614	± 2.5	PASS
16QAM	LCH	VL	TN	-1	-0.000538	± 2.5	PASS
		VN	TN	-0.99	-0.000532	± 2.5	PASS
		VH	TN	3.01	0.001618	± 2.5	PASS
	MCH	VL	TN	0.61	0.000324	± 2.5	PASS
		VN	TN	-0.06	-0.000032	± 2.5	PASS
		VH	TN	1.26	0.000669	± 2.5	PASS
	HCH	VL	TN	2.86	0.001501	± 2.5	PASS
		VN	TN	4.28	0.002247	± 2.5	PASS
		VH	TN	4.41	0.002315	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.45	0.002392	± 2.5	PASS
		VN	-20	-1.52	-0.000817	± 2.5	PASS
		VN	-10	-0.32	-0.000172	± 2.5	PASS
		VN	0	1.27	0.000683	± 2.5	PASS
		VN	10	-0.87	-0.000468	± 2.5	PASS
		VN	20	-1.13	-0.000608	± 2.5	PASS
		VN	30	-0.45	-0.000242	± 2.5	PASS
		VN	40	3.96	0.002129	± 2.5	PASS
		VN	50	-1.79	-0.000962	± 2.5	PASS
	MCH	VN	-30	3.82	0.002032	± 2.5	PASS
		VN	-20	0.09	0.000048	± 2.5	PASS
		VN	-10	-1.66	-0.000883	± 2.5	PASS
		VN	0	4.22	0.002245	± 2.5	PASS
		VN	10	3.48	0.001851	± 2.5	PASS
		VN	20	-1.23	-0.000654	± 2.5	PASS

		VN	30	4.19	0.002229	± 2.5	PASS
		VN	40	0.5	0.000266	± 2.5	PASS
		VN	50	1.33	0.000707	± 2.5	PASS
	HCH	VN	-30	2.92	0.001533	± 2.5	PASS
		VN	-20	-1.26	-0.000661	± 2.5	PASS
		VN	-10	3.91	0.002052	± 2.5	PASS
		VN	0	4.63	0.002430	± 2.5	PASS
		VN	10	2.94	0.001543	± 2.5	PASS
		VN	20	0.65	0.000341	± 2.5	PASS
		VN	30	2.46	0.001291	± 2.5	PASS
		VN	40	2.2	0.001155	± 2.5	PASS
		VN	50	-0.32	-0.000168	± 2.5	PASS
16QAM	LCH	VN	-30	0.86	0.000462	± 2.5	PASS
		VN	-20	-1.6	-0.000860	± 2.5	PASS
		VN	-10	-1.97	-0.001059	± 2.5	PASS
		VN	0	3.93	0.002113	± 2.5	PASS
		VN	10	4.03	0.002167	± 2.5	PASS
		VN	20	1.83	0.000984	± 2.5	PASS
		VN	30	3.9	0.002097	± 2.5	PASS
		VN	40	1.46	0.000785	± 2.5	PASS
		VN	50	-1.9	-0.001022	± 2.5	PASS
	MCH	VN	-30	-0.77	-0.000409	± 2.5	PASS
		VN	-20	0.89	0.000473	± 2.5	PASS
		VN	-10	2.04	0.001084	± 2.5	PASS
		VN	0	4.1	0.002178	± 2.5	PASS
		VN	10	3.54	0.001880	± 2.5	PASS
		VN	20	-1.05	-0.000558	± 2.5	PASS
		VN	30	2.1	0.001116	± 2.5	PASS
		VN	40	0.19	0.000101	± 2.5	PASS
		VN	50	1.36	0.000722	± 2.5	PASS
	HCH	VN	-30	4.04	0.002121	± 2.5	PASS
		VN	-20	4.15	0.002178	± 2.5	PASS
		VN	-10	4.65	0.002441	± 2.5	PASS
		VN	0	0.02	0.000010	± 2.5	PASS
		VN	10	0.91	0.000478	± 2.5	PASS
		VN	20	2.68	0.001407	± 2.5	PASS
		VN	30	3.33	0.001748	± 2.5	PASS
		VN	40	4.1	0.002152	± 2.5	PASS
		VN	50	3.89	0.002042	± 2.5	PASS